

# VIJAY RAVI

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## EDUCATION

**Master of Mathematics** | *Computer Science*

University of Waterloo; GPA: 91.5

**Batch of '22**

Waterloo

### Coursework:

- Reinforcement Learning (Grade: **94**)
- Natural Language Processing (Grade: **100**)
- Distributed Systems (Grade: **91**)
- Programming Languages (Grade: **92**)

**Bachelor of Engineering** | *Computer Science and Engineering*

RV College of Engineering; GPA: 9.25

**Batch of '20**

Bengaluru

## BEST OF SKILLS

- PyTorch
- OpenAI apis
- Elastic Search
- Hardcore C++
- Systems, Caching and Networking
- Training Neural Networks - DQNs to CNNs to LLMs

## WORK EXPERIENCE

**Lead Engineer**

LegalAI

**October, 2022 - Present**

India

- **Team:** Team Lead of 4 - exploring GPTs
- **Impact:** Tailored GPT-wrapper for Indian Law - hits 85% accuracy - on our mission to help common man with AI. The responses are grounded in a privately scraped legal database!
- **Website:** [startfilings.com](https://startfilings.com)

**Associate Research Engineer**

Huawei

**January, 2023 - October, 2023**

Canada

- **Team:** Distributed Database Management System
- **Impact:** SOTA caching system (**SOSP '23**), SOTA caching system
- **Contribution:** Pushed multiple features - from handling OOM errors, fixing a major ETCD backward-compatibility bug, refactoring stale code, object cache redesign, to writing test cases. Also, briefly worked to hone the caching system to support Huawei's Storage Engine!

**Research Assistant**

Rogers Communications

**1 year and 8 months**

Canada

- **Team:** 5G, AI and Innovation
- **Impact:** Prototyped Waterloo's own WATonoBUS' (autonomous bus) workload on the 5G stack! Tried out various ML workloads (Coco, ImageNet, etc. and NN weights) on the 5G stack

<b>Research Assistant</b> Oracle	<b>1 year and 6 months</b> Canada
<ul style="list-style-type: none"> <li>• <b>Team:</b> Distributed Databases</li> <li>• <b>Impact:</b> Built a Distributed Database with multi-threading capabilities - beats Mu and DARE and will likely be SOTA - <b>OSDI '24</b></li> </ul>	
<b>Software Engineer</b> Cisco	<b>1 year and 5 months</b> India
<ul style="list-style-type: none"> <li>• <b>Team:</b> Microservices and Orchestration</li> <li>• <b>Impact:</b> Worked in the backend team for intersight.com and pushed a lot of features to production: email workflow, centralized microservice for sanity checks of workflows, etc. A key feature was task prediction of workflow times using SOTA ML models!</li> </ul>	
<b>Software Engineer Intern</b> Boeing	<b>2 months</b> India
<ul style="list-style-type: none"> <li>• <b>Team:</b> Defense, Space and Security</li> <li>• <b>Impact:</b> Built an Android app for artillery design and control systems, for an Indian Navy defense plane</li> </ul>	
<b>Research Assistant</b> RVCE	<b>6 months</b> India
<ul style="list-style-type: none"> <li>• <b>Team:</b> Prof. K. Badarinath's Research Team</li> <li>• <b>Impact:</b> Worked on an intelligent noticeboard that displays AI-curated content based on emotion of the bystander - <b>IEEE CSITSS conference best paper '19</b></li> </ul>	

## PUBLICATIONS

<b>General-purpose Serverless System for Distributed Applications in the Cloud</b> SOSP 2023	2023
<ul style="list-style-type: none"> <li>• Was part of Huawei's DDSM (Distributed Datasystems Managment) team where we built a SOTA cacheing system</li> </ul>	
<b>Activity Duration Prediction of Workflows and analyses of Various Machine Learning Approaches</b> IRJET 2020	2020
<ul style="list-style-type: none"> <li>• As part of my undergraduate thesis, at Cisco, I explored into Machine Learning solutions for activity duration prediction.</li> </ul>	
<b>Cost-effective and self-regulating digital Noticeboard systems</b> IEEE 2018 3rd CSITSS	2018
<ul style="list-style-type: none"> <li>• Cost-effective noticeboard systems leveraging sentiment analysis and displaying notices</li> </ul>	